

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-10 (cancelled)

11. (new) An electrically conductive thermoplastic elastomer composite comprising an elastomer matrix and metal-containing particles as an electrically conductive filler, wherein the electrically conductive particles are at least partly coated with a self-assembled monomolecular layer whose molecules correspond to the general structure 1:



where X is a neutral end group capable of forming a stable complex with the metal surface.

12. (new) The thermoplastic elastomer composite of claim 11, wherein X is mercaptan (SH), 4-pyridine or phosphine.

13. (new) The thermoplastic elastomer composite of claim 11, wherein n in the general structure 1 is between 9 and 19.

14. (new) The thermoplastic elastomer composite of claim 11, wherein neutral molecular wires are arranged in the self-assembled monomolecular layer.

15. (new) The thermoplastic elastomer composite of claim 14, wherein the length of said molecular wires is between 7 and 21 Å.

16. (new) The thermoplastic elastomer composite of claim 14, wherein said molecular wires are quaterthiophene (QT) or diphenylhexatriene (DPHT) molecules.

17. (new) The thermoplastic elastomer composite of claim 11, wherein an electrically conductive polymer is arranged in the self-assembled monomolecular layer.

18. (new) The thermoplastic elastomer composite of claim 17, wherein the electrically conductive polymer is polyaniline (PANI), polypyrrol and/or polythiophene.

19. (new) The thermoplastic elastomer composite of claim 11, wherein the elastomer matrix comprises at least two polymer phases.

20. (new) The thermoplastic elastomer composite of claim 11, wherein it comprises a styrene-ethene-butene-styrene copolymer (SEBS).